

REMARKS

Applicant requests reconsideration of the application in view of the following remarks.

35 U.S.C. 102(e) REJECTIONS

CLAIMS 1 AND 5

Schliefsstein et al. does not disclose a composite material in which the conductive particles have a volume resistivity greater than about 2 ohms-cm and less than about 2 megohms-cm.

The Abstract and the passage at col. 1, lines 44-49, does not contain any information concerning particle resistivities. The resistivities referred to at col. 4, line 60 - col. 5, line 9, are the volume resistivities of the composite materials, NOT the volume resistivities of the "electroconductivity-imparting" particles. The passage at col. 6, lines 39-52, has to do with the use of particles having cores coated with electroconductive materials but the passage says nothing about resistivity values for the particles.

The Schliefsstein et al. passage at col. 4, line 60 - col. 5, line 9, states that silicone rubbers having volume resistivities ranging from 0.0001 to 1,000,000 ohm-cm have been prepared. The source of this statement is Nakano et al. (U.S. Pat. 5,229,037) which suggests such silicone rubbers can be achieved with fillers such as "carbon black, graphite powder, carbon fibers and the like." Nakano et al., col. 1, lines 21-41. None of these materials, however, have resistivities greater than 2 ohm-cm and thus do not fall within the prescribed limits stated in claims 1 and 5.

Carbon black is of particular interest in that it is widely used in elastomers and plastics as a filler. Carbon black comes in the form of spherical primary particles fused together into what might be called "aggregate particles". It is these aggregate particles that are dispersed within the elastomer or plastic matrix. Measurements of the resistivities of a wide variety of carbon blacks suggest that the resistivity of the individual aggregate particles is less than $1/3$ ohm-cm (see "Electrical conductivity of conductive carbon blacks: influence of surface chemistry and topology", Applied Surface Science 217 (2003), 181-193, Fig. 1) — far less than the lower limit of 2 ohm-cm specified in claims 1 and 5.

Schliefsstein et al. did not anticipate claims 1 and 5.

CLAIMS 2, 6, 9-11

Schliefsstein et al. does not disclose composite materials wherein the conductive particles have resistivities greater than 2 ohm-cm and less than 2 megohm-cm and, in addition, have the features specified in claims 2, 6, 9-11. Thus, Schliefsstein et al. did not anticipate claims 2, 6, 9, 10, and 11.

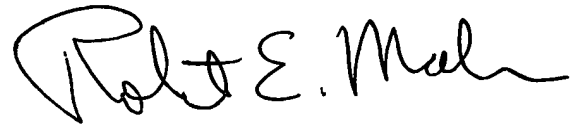
* * * * *

The claims now appear to be in condition for allowance and such action is respectfully requested.

A check is enclosed to cover the fee assessed for a one-month extension of time to respond to the present office action.

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account No. 13-1239.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert E. Malm". The signature is fluid and cursive, with the first name "Robert" being more legible than the last name "Malm".

Date: 04/21/04
Telephone: (310) 459-8728

Robert E. Malm
Reg. No. 34,662